

CASE REPORT

Kissing Nevus of the Penis

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Kissing or divided nevi are similar in shape to congenital melanocytic nevi located on an adjacent part of the body that are separated during embryogenesis. Kissing nevi of the upper and lower eyelids have been reported infrequently since the first report in 1908. Kissing nevi of the penis are very rare, with only 12 cases being reported until now, and this is the first case report in the Korean dermatological literature. A previously healthy 27-year-old man presented with asymptomatic black colored patches, which were detected 10 years ago, on the glans penis and the prepuce with growth in size. We report here a case of kissing nevus of the penis, which showed an obvious mirror-image symmetry relative to the coronal sulcus. (*Ann Dermatol* 23(4) 512~514, 2011)

-Keywords-

Nevus, Pigmented

INTRODUCTION

Kissing nevi are a rare clinical variation of congenital melanocytic nevi that are located on adjacent sites of the body at which division occurs during embryogenesis. Since the first case report by Von Micheal in 1908, a few kissing nevi have been reported located on the upper and the lower eyelids¹⁻³. A kissing nevus appears to be a single lesion when the lids are closed. These lesions are very

rare on the penis, with only 12 cases being reported to date in the English literature, and only one case reported a kissing nevus of the eyelids in the Korean dermatological literature⁴⁻¹². We report the first case of a patient with a kissing nevus located on the penis in the Korean dermatological literature.

CASE REPORT

In January 2010, a 27-year-old man presented with asymptomatic black colored patches on his penis that were detected 10 years ago when a circumcision was performed. On physical examination, 2.0×1.5 cm and 1.5×1.3 cm-sized black colored patches were located on the prepuce and the lateral glans penis, respectively (Fig. 1). These lesions did not affect the coronal sulcus but were seen on each side of it. The lesions overlapped each other when the prepuce was retracted. His past and family histories were non contributory. Laboratory tests were within normal limits. A skin biopsy was performed on both patches. Histopathological findings showed nests of nevus cells in the dermal-epidermal junction and in the upper dermis (Fig. 2). Immunohistochemical stains revealed a partial positive for HMB45 and a strong positive



Fig. 1. Kissing nevi of the penis. Black colored patches on the glans and the prepuce laterally.

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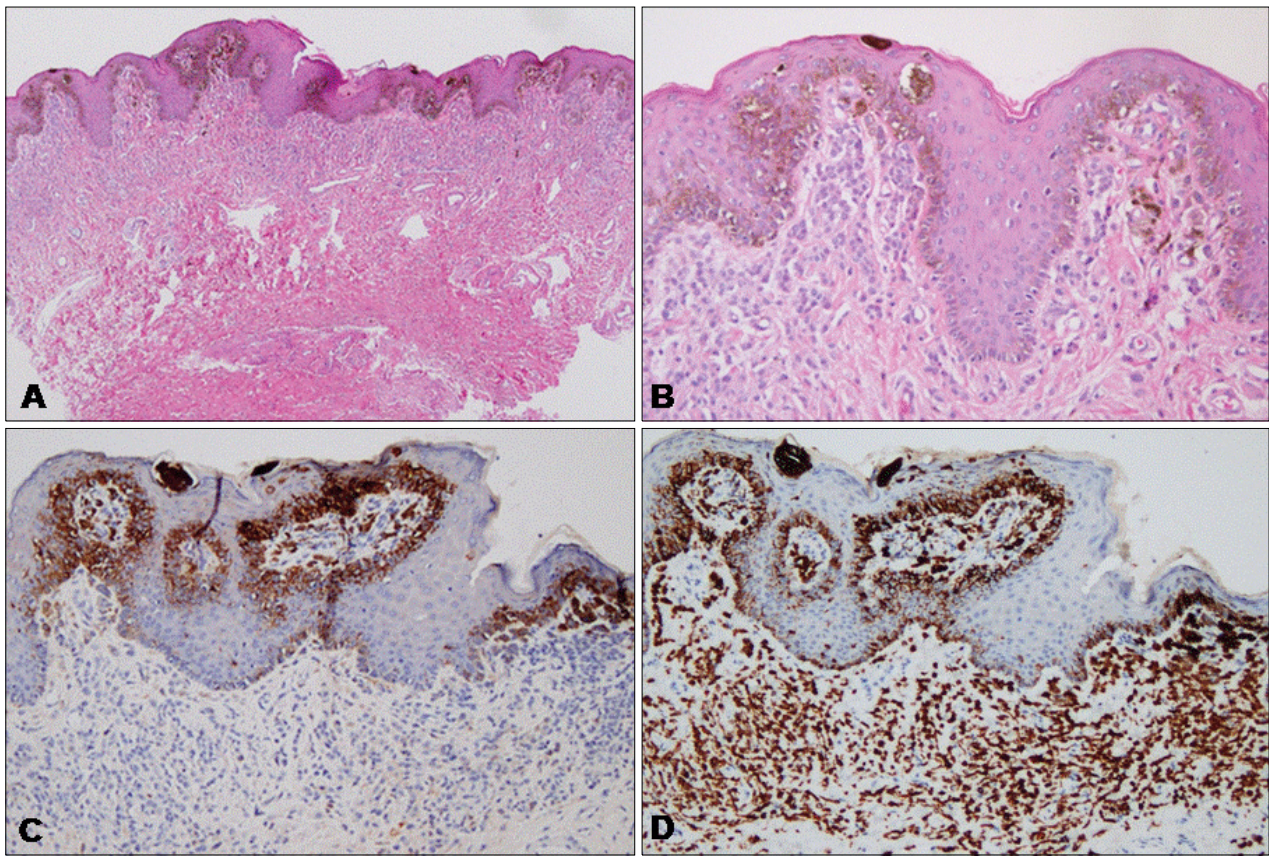


Fig. 2. Histopathological examination of the brown-black pigmented patches on the glans penis (A, B). Nests of nevus cells are present at the dermal-epidermal junction and upper dermis (H&E, A: $\times 40$, B: $\times 200$). Immunohistochemical staining for HMB45 (C) and melanin A (D). Nevus cells show partial and strong reactivity to HMB45 and melanin A, respectively (C, D: the glans penis, $\times 100$). Histopathological findings and immunohistochemical staining of a specimen from the prepuce reveal similar features.

for melanin A (Fig. 2). The black patches were diagnosed as compound melanocytic nevus. We recommended that he be treated with an Nd:YAG laser, but he refused further treatment.

DISCUSSION

In this report, we experienced a rare kissing nevus of the penis. Kissing nevi are two adjacent brownish to black pigmented lesions that split along with division of the body during embryogenesis. Kissing nevi of the eyelids were first described by Von Micheal in 1908, and the name was first used by Fuchs¹³ in 1919. Since then, at least 45 additional cases have been reported^{1-12,14-17}. Other locations and types of kissing nevi have been reported less frequently than that of the eyelids: nevus spilus of the eyelids¹⁵, a divided mast cell nevus¹⁶, epidermal nevi of the finger¹⁷, and divided nevi of the penis⁴⁻¹¹.

The borders that would be united into one and the mirror-image symmetric features are related to its embryologic mechanism. The eyelids start to form at weeks 5

~6 of gestation and fuse at weeks 8 to 9 of gestation, then divide again at week 24 of gestation¹⁴. A kissing nevus of the eyelids may originate between weeks 8~24 of gestation. During the fused state, melanoblasts are present at the borderline between the upper and lower eyelids. Subsequently, cellular division continues, and one nevus becomes two lesions that were located on adjacent sites.

Kissing nevi of the penis are extremely rare. The first case was reported by Desruelles et al.⁴ in 1998, and only 12 cases of kissing nevi of the penis have been described⁴⁻¹¹ (Table 1). The same mechanisms can be applied to these lesions. Two invaginations appear in the digital edge of the penis from gestational week 11~14. The epithelial glandular placode forms the glandular urethra and the epithelial preputial placode divides and forms the glans and the prepuce⁴. Desruelles et al.⁴ hypothesized that melanoblasts and melanocytes migrate to the lesion before separation of the glans from the prepuce at 12 weeks. He thought that after separation each nevus may develop independently. In contrast, Kono et al.⁶ suggested that melanoblasts start to migrate just after completion of

Table 1. Kissing nevus of the penis

No.	Age	Onset age (or age when it was noticed)	Malignant transformation	Treatment & results	Reference no.
1	7	3	Absent	Not mentioned	4
2	18	Not exactly described	Absent	Not mentioned	5
3	9	Not exactly described	Absent	Not mentioned	6
4	21	Not exactly described	Absent	Not mentioned	6
5	12	1	Absent	Not mentioned	6
6	14	13	Absent	Total excision: good result	7
7	30	30	Present	Total excision and skin graft: good result	8
8	6	6	Absent	Laser treatment: good result	9
9	11	8	Absent	Total excision and skin graft: good result	10
10	20	Not exactly described	Absent	Close observation	11
11	25	Teens	Absent	Close observation	11
12	21	7	Absent	Close observation	11
13	27	17	Absent	Close observation	Our case

the invagination of the preputial epithelial placode.

Usually, almost all kissing nevi lesions of the penis are benign melanocytic nevi, except one case reported by Egberts et al.⁸ in 2007. Although that patient had no family history and was just 30-years-old when melanoma was detected, his lesions grew rapidly and atypical pigmentation was an unusual clinical feature.

Malignant melanoma of the penis is rare, accounting for <2% of primary penile malignancies. Most cases of malignant melanoma of the penis occur in patients in their sixth and seventh decades¹⁸. So, when choosing a therapeutic option for a kissing nevus of the penis, the focus should be on esthetic and functional outcome. Surgical excision and reconstruction by skin grafting using remnant foreskin have been recently performed and showed favorable outcomes¹⁰. However, in cases in which nevi are large, as these lesions, surgical excision may cause a scar and deformity of the glans penis. Mandal et al.¹⁹ treated congenital nevocellular nevi with a laser and showed satisfactory esthetic results. In our patient, we concluded that laser treatment was the best method to treat his lesion without complications. But, he denied any further treatment and chose observation.

We report here a rare case of kissing nevus of the penis that showed an obvious mirror-image symmetry relative to the coronal sulcus.

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